ARTICLE I.

THE ASPECT OF LITERATURE AND SCIENCE IN THE UNITED STATES,
AS COMPARED WITH EUROPE.

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It is a trite remark, that the most successful and distinguished men, are often self-made men. Without ancestry, without friends, without external means, alone and apparently helpless in the world, they are nevertheless often able, through the force of innate energy and a spirit of indomitable perseverance, to triumph over all obstacles; to open for themselves a way to influence and fame; and to enstamp in living characters upon their age the impress of their names and power. While others in their career have had only to follow beaten paths, winding through flowery meads and verdant lawns and venerable groves, they have been compelled to take a shorter course, to climb Alps and stem torrents, in order to arrive at the same goal; and the spirit of energy and enterprise, which has hurried them on and vanquished all difficulties in the outset, is still to them the earnest of future and higher success. In this spirit,—in the deep workings of an irrepressible, innate power,—lies the secret of the whole matter. Such men are successful and become distinguished, not because they are self-made, but in spite of the privations and hindrances, which they have had the energy to overcome.

It does not however follow, that men attain to eminence and fame solely or chiefly by having to struggle against adverse cir-
cumstances. The same energy and perseverance which they have expended in order to vanquish obstacles, whether in public life, or in the calmer retreats of literature and science,—to how much higher and more perfect results might these qualities have led them, had they been surrounded not by obstacles, but by facilities and encouragements? If Shakspeare stands forth pre-eminent as the child of nature in his own "wood-notes wild," how greatly nevertheless might he not have improved the mass of his writings, had he enjoyed the influences and the training which aided to form Milton and Goethe? If our own Franklin obtained distinction in the walks of science, still, how much more might he not probably have accomplished, had he possessed that early discipline and those advantages, which were the lot of Newton and Laplace?

As with individuals, so with nations. A youthful people, with vast resources and gigantic enterprise, may rush at once upon the arena of the world, and stand forth in the full possession of all the elements of physical and moral power. And yet the very conditions and circumstances of its existence and growth may be such, that these elements have not been and cannot be as yet wrought into that harmony and completeness of combination, which can alone avail for the full development of its resources and the perfection of its powers. Both in arts and arms there is perhaps a want of discipline, a want of unity of plan and purpose, and of course so far a want of efficiency and of high result. The youthful Minerva springs forth indeed in vigour; but her stature is not yet full grown, nor her armour complete. Older nations in the course of ages have learned a more thorough discipline; they have heaped together materials; they have acquired more unity of plan and steadfastness of purpose; and thus they have brought forth more decisive results. With them Minerva has grown to her full stature, and is armed cap-a-pie.

These general remarks may serve to introduce the subject, which I propose to discuss in the present essay; viz. The aspect of literature and science in our own country as compared with the old world. I have been led to treat of this topic, partly from the fact of having had some opportunities for personal observation; and partly because there is among us a prevalent disposition, on the one hand, to decry our own literary institutions and progress in comparison with those of Europe; and on the other, to cry them up extravagantly, at the expense of those of all other nations. Both of these extremes appear to me to be unjust. But
a rational and careful estimate of the actual circumstances and prospects of literature and science in the United States, as compared with Europe, has, so far as I know, never been attempted. At the same time I would desire to guard against every expectation of novelty or completeness. To treat the subject in detail, would require a volume, which might doubtless be made exceedingly instructive; but I can here of course only sketch an outline of some of the main points; and those relating to causes now in operation, rather than to actual results.

Our country is indeed a youthful giant, leaping forth in his strength. Little more than two centuries have passed away, since the white man's foot was first planted on our soil; or since the forest ceased to wave over the fair scenes on every side, where now rise so thickly the habitations of wealth and taste, the halls of science, and the temples of the living God. For more than a century and a half, the original settlements of our land remained separate and feeble colonies, dependent on the mother country, and nursed with a step-mother's care; until at length the rod of oppression caused them to band together, and with one effort they were free. From that movement of national freedom and national unity, commenced the march of national development. With a rapidity wonderful in itself, and unexampled in the history of nations, this development has advanced with gigantic strides, until in some fifty years its progress has very far outstripped all that had taken place in the whole period of our previous existence. Instead of thirteen feeble colonies, we now have six and twenty powerful States; instead of a population of three and a half millions of souls, we now have seventeen millions; instead of being confined to the coasts of the Atlantic, the track of our pioneers of civilization has already touched the Pacific; and the sails of our commerce whiten every sea in every clime. But in the midst of these enormous physical developments, could it be expected that the cultivation of the national mind should advance with equal pace? or, that, while, through the force of circumstances, every energy has been strained to triumph over obstacles and secure an external prosperity, there should be time and opportunity in a like degree for the abstractions and calmer enjoyments of literature and science? Such a state of things would, at least, have presented a phenomenon far more anomalous and imposing, than any recorded on the historic page.

Turn for a moment to the European world. We see there an
assemblage of nations, whose foundations were laid in the earliest periods after the overthrow of the Roman empire, and whose birth dates back not less than ten or twelve centuries. True, their political and civil divisions have been subject to many changes; and the forms of their external existence have undergone many a revolution; yet the great national characteristics of the various races stand out everywhere in bold relief, and are not to be mistaken. The agitations and fierce passions of the crusades roused the mind of Europe from its state of lethargy, and prepared the way for the reviving dawn of letters to break over ages of darkness; and then the era of the Reformation brought in a new flood of light, not only directly upon the Protestant world, but indirectly also upon the Papal nations. True, the kingdoms of Europe have lived on in wars and conflicts with one another and among themselves; their vast physical resources, when developed, have been swallowed up and exhausted in struggles for conquest or for existence. Yet these resources have been developed; and in the midst of all these scenes of peril, institutions of learning were early founded and have been cherished; and, in the masses of a crowded population, there has always been a class eager to devote themselves to the charms, and to the advancement of letters, sciences and arts. There often exists indeed in the old world no outlet for intellectual energy in the ordinary channels of an active, practical, business life; and thus men of aspiring and enterprising minds have been and still are driven to the cultivation of learning as the only remaining means of acquiring fame and influence and fortune. It is to this class of men, thus devoted to letters and the sciences, which has now existed for centuries in the old world, and surrounded itself by degrees with splendid means and materials of learning, that we must ascribe the difference, if any exists, between the aspect of literature and science in the old world and in these United States. Such a class can scarcely be said as yet to exist in our own land; or, at most, is only in its infancy.

Let me dwell for a few moments on some circumstances in our condition and character, which have operated and must still operate to prevent among us the formation of such a class.

One of the most prominent of these circumstances, is the vast extent of our territory and of its physical resources as yet undeveloped, in comparison with the amount of our population. The consequences of this disproportion are so obvious, as hardly to need enumeration. The great demand is for an active, enter-
prising, labouring population, in the various practical departments of society. And such is the extent of room, that no one active class is jostled by another; but ere the demand is satisfied in one place,—so soon as the bones and muscles of society are there formed, and ere the flesh has come up upon them,—there is a great emigration to another quarter, and the process of formation is again and again repeated. Fifty years have hardly elapsed, since from New England the tide of population began to roll in upon Western New York and Ohio, then covered with primeval forests. These are now the rich and thrifty abodes of intelligent lords of the soil; and themselves send forth their swarms to people in like manner other more distant States and Territories, Missouri, Michigan, and Iowa. But suppose all this mass of population, instead of thus seeking out new scenes of active life and national development, had from the force of circumstances, remained pent up within the limits of New England? Would not her less fertile soil have been more richly tilled? Would not her fleets have spread out still more canvas upon every sea? And especially, and what is more to our purpose, with all her schools and seminaries of learning, would not some portion of this surplus population naturally have turned its attention to arts and sciences; and the class of literary and scientific men have become far greater than at present? We are warranted in drawing this conclusion, from the fact, that those, who thus went forth, carried with them the "precious seed," of religion and learning; and wherever they settled down, churches, and schools, and colleges were planted. Within these fifty years, my own Alma Mater has grown up, where then the forest waved;* and numerous other Institutions of learning have followed throughout all the regions of the West. Would this spirit have been checked, had these emigrants remained at home, surrounded by older institutions and more extensive means? Would not rather the density of population, and the want of other occupation, and other opportunities for enterprise have caused this spirit to become still further developed and still more universal? and thus learning and the arts have been more widely and highly cultivated?

In another aspect too, the disproportion between our territory and our population, operates against the cultivation of letters. When the great and absorbing demand is for active and enterprising labourers in the practical departments of society; there is of course comparatively little demand in those which are less

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practical. And this state of things is further upheld by the circumstance, that the main objects after which every man strives, reputation, influence, wealth, or at least the means of livelihood, are with us so much more easily secured in these practical departments. No parent in our land in selecting a course of life for his child, would think of training him to the career of letters; for it can hardly be said to exist; or at best it is the most irregular and uncertain of all. Few young men, in entering upon life, would choose to depend on literature for their bread. How very small is the relative number of those who obtain even a collegiate education? And of this small number, how few love learning for its own sake, or afterwards pursue it? They live through their four years or more of elementary toil, not for the purpose of cultivating literature and science in after life, but as a course of honourable preparation for a career of professional activity, which shall bring them in, not the consciousness of having enjoyed the fruits of science, or of having enlarged its boundaries, but a rich reward of wealth and influence. Who could as yet look to science or to letters in our country with such hopes?

A second important and very comprehensive feature in our condition, which operates against the building up of a literary and scientific class among us, is the very form and constitution of society and government. With us, all power, all influence, all offices of trust and profit, all institutions for the welfare and progress of the community, emanate from the people themselves; and are intended to operate upon, and for the benefit of, the people as a whole,—for the poor as well as for the rich; for the unlearned as well as for the learned; for the labourer in the field and the artisan in his workshop, as well as for the merchant at his desk, the scholar in his study, or the statesman in his bureau. The whole government, in theory and in practice, is in the hands of the great mass of the people; it emanates from them, and at short intervals returns to them. It is therefore the sentiment of the whole community,—an enlightened and vigorous public sentiment,—on which the whole fabric of our social and political institutions must rest; and whatever be the predominant character of this public sentiment, such will naturally be the character of the institutions springing from it.

There are probably few persons in this country, who would be inclined to doubt, that this is, theoretically at least, the best and only true foundation of human society and government; or that the unpretending paper drawn up in the cabin of the May-flower,
laid the corner-stone of a great and hitherto successful experiment in the science of social and political economy, such as the world has never elsewhere beheld. Our pilgrim-fathers were men of no common minds, nor common training. If they were enthusiasts, it was in a great and noble cause, and for an object which was to promote the welfare of the world,—one of those great causes, indeed, like our own revolution, which can be carried on to a successful issue, only by the mighty efforts and sacrifices of a profound and well-regulated enthusiasm. They swept away at once the ancient forest of deep-rooted prejudice and despotic institutions. They dug deep and planted their vineyard of freedom and hedged it about; and now for two centuries it has grown luxuriantly, and its leaves are "for the healing of the nations." For two centuries we have known no king, no lordly nobles, no despotic laws; the labourer at his plough, and the smith at his forge, are as free, and may become as noble as the dukes and princes of other lands. We know not among us the idea of rank; and the tendency doubtless is, to resist and spurn all adventitious claims, which in the diversified phases of society, may occasionally be set up. Perhaps it is to this habitual feeling of equality and independence, imbibed in our earliest infancy and nursed through life by all external circumstances, that we are to look for the maintenance of our institutions,—it may be, in an equal degree with the cultivation of intelligent public sentiment, or the virtue of our public men.

Let this all be as it may; and let public sentiment be as highly cultivated as possible; still, as it must be the sentiment of the mass of the community, it cannot of course outstrip the cultivation of the mass itself, nor lead to higher general results than it is able to comprehend and appreciate. But however far the cultivation of society may be pushed, it is now and will forever remain the fact, that the great mass of every community will not be men of high education. The statesmen, the professional men, the men of property and leisure, ever constitute but a small proportion of the population; while the great body,—and in our country, where every man's vote is equal, the commanding body,—will be made up of those who follow agriculture, the various trades, and commerce. Now these may be as a body, enterprising and enlightened;—and they are in this country more so, I believe, than in any other under heaven;—but as a body, they can never be learned. They can see, in our own case, the propriety, and judge of the effect of measures for bringing out and cultivat-
ing the great resources of our country;—which shall tend to remove taxes from themselves and furnish a ready demand and market for their labour and their products; which shall increase their physical comforts and enjoyments, diffuse the blessings of general education, and thus go to render us a great and happy people. All this the great mass among us can and do comprehend; and they will, and do ordinarily vote for men to carry out such measures. Indeed, it is in no small degree to the prevalence of this enlightened public sentiment, that we must already attribute our rapid development as a nation; and also the standing which all these classes here hold in comparison with other nations. It is no patriotic delusion, no self-flattery, to say, that in all these respects our own country takes rank of every other upon earth. The class which forms the lowest order of all European society,—the class of peasantry,—has here, no existence;—its squalid poverty and physical discomfort, and boorish ignorance are alike unknown. I may safely make the remark, without the fear of being contradicted at home or abroad by those acquainted with the facts, that in no country of Europe, and still less in Asia, and Africa, is the great body of the community so well informed, or their physical wants so well supplied; in short, no country, where the great mass will bear comparison as to intelligence and physical comfort, with the same classes in our own land. I will not say, that there is not more enjoyment elsewhere, among even the poorest classes; because it is our national characteristic to be always striving for something future, and so to forget or be dissatisfied with the present; while even the poor peasant of foreign lands, like the poor slave upon our own soil, having no higher hopes of what is yet to come, gives himself up to enjoy that which he can grasp of the present.

Now all these considerations have a strong bearing upon the point before us. In a country like ours, where the public sentiment of the great body is the chief regulator of all public measures and public tendencies, and where this sentiment is as yet, from the nature of the case, necessarily directed almost wholly to practical interests; we cannot expect it to suggest or even to encourage measures for cultivating merely the public taste, or for promoting what may be called the luxuries of intellectual life; we cannot expect it to do more than yield a cold protection to the efforts of taste, or to the culture of literature, science and the arts; except so far as these may subserve other more practical interests. To expect more, would be as illogical in theory, as it
would be contrary to the teachings of experience. Rome rose from slow beginnings; and although the stern virtues of the republic made her the mistress of the world; yet her literature and the magnificent remains which have come down to us, were chiefly the work of later times and of imperial patronage. The tickle and splendour-loving Greeks were easily persuaded by popular leaders, acting upon a religious sentiment, to undertake great national works; but these were regarded as the works of the leaders and not of the nation; and the Parthenon, in its mournful ruins, still proclaims, not the intelligence and enterprise of the Athenian people, but the taste and the glory of Pericles.

While it was thus possible in Athens for a popular leader during a long series of years, to lay his plans and seize his opportunities and collect the treasures necessary for public works on so grand a scale, a totally opposite principle has been introduced into our own political constitution, which cuts off all opportunities for any similar manifestation. The periodical return of all power to the people after short terms of official trust, while it prevents, as was intended, the usurpation and retention of unlawful power, operates at the same time as a bar to all permanent system in our public policy, and necessarily imparts to it an air of instability and fluctuation. This is true even in our great material interests, our commerce, our manufactures, our currency, our lands; in respect to which one administration hardly has time to devise and enter upon some scheme of policy, before it is succeeded and its works swept away by another. Still less therefore can we expect the permanency, or even the general establishment of any system, which shall foster education or promote the growth of a literary and scientific class, beyond the extent to which it may be appreciated by the popular intelligence.

If now we turn our eyes to the old world, we behold only the reverse of the whole picture. From the autocracy of Russia down through various modifications to the mixed monarchies of France and Great Britain, the fundamental principle of society and government is, that power and influence are permanently in the hands of the few; while the great body of the people are without influence and without voice in all the measures relating to national policy and national welfare. Their part is only to receive protection and to bear the burdens. In the pure despotisms of the north and south, this state of things exists in its full force, except as mitigated by the patriarchal character of individual monarchs. In the constitutional sovereignties, so-called, of middle Europe, it
is modified in name, but not in fact; for the estates which are to represent the people, are themselves dependents, not on the people, but on the sovereign; they have no power to propose measures, and can at most but disapprove of those proposed by the government. Even in France, with her charter, with more than thirty millions of people and less than a hundred thousand voters, how many of these last give their voices independently of the strong influence of government or aristocratic wealth? In England too, the enormous wealth of the aristocracy, acting in union with the power and influence of the crown, ever has and probably will very long be able to bear down the popular voice, or at least shape it to its own purposes. And if in the movements of recent years, the disunion of the crown and nobles has enabled the people in some degree to triumph, still the separation is unnatural and cannot be regarded as a settled principle. In these fierce contests, where the highest questions of public right and constitutional order have been at stake, the appeal has notoriously been, not to an enlightened public sentiment, but to the weight of direct personal interest and to venal gold. Wherever the victory may for a time have been, there can be little question, that it will ultimately and long remain upon the side of wealth and power.

All this is in total contrast to our own institutions; and the same contrast runs on throughout the whole vast range of detail. With us, the government has no power, except such as is directly delegated; in Europe, the governments possess all power, except such as is expressly withheld. With us, the government, itself resting upon the intelligent support of the people, must make the welfare and general intelligence of the people its great end. In the old world, every government naturally strives to build up in every way its own strength; and when for this purpose it wisely takes also into the account the welfare and intelligence of its people as a whole, it nevertheless takes care to do it in such a way, as to induce no encroachment upon its own policy and power. It takes care to draw around and make dependent on itself, all the elements of influence and power existing among the people. Men distinguished for their wealth, their talents, their skill, their learning, their wisdom, are sought out, and become its instruments. The church and her ministers are in every country of Europe a part and parcel of the State, and under its control; and religion thus comes to the people, not more to purify and bless them, than to inspire them with devotion to their king.
Here then is the sphere of public sentiment in the old world. It is not the feeling of the whole community proclaimed in reference to topics with which all are conversant; but it is the voice of the few,—of the higher and more cultivated classes, which the government draws out and around itself, and which alone it deems worthy to be regarded as the supporters of its moral strength. What does the government of England care for the opinion or the voices of its colliers and the operatives of its factories, except as being the cry of vast masses of brute force? What deference would the czar pay to the expressed opinions of the millions of his serfs; or even the emperor of Austria to the voices of his peasantry?

Thus, while with us, the whole commonwealth in all its members is the State, and the government its dependent; in the old world the government is the State, and the whole community dependent upon it. The apothegm of the French monarch, "I am the State," was not spoken at random, nor without the feeling of its profound truth. The throne and its attributes are the central point, the heart, to which the life-blood of a nation is attracted from every quarter, and which again gives it forth in pulses through infinite ramifications to every extremity of the body politic.

Now this is a state of society, which we, as a people are not apt fully to appreciate; and the effects of which, those who have not visited foreign countries are not perhaps prepared duly to estimate. The remark holds equally true, vice versa, as to Europe; where it is very rare to meet with individuals who can understand and fully appreciate the state of things in this country. We are prone, and justly prone, to regard our constitution of society as most of all in accordance with the rights and well-being of mankind. We believe too, and with equal justice, that we as a people are happier under this form of society, than we could be, under any other. But when many of us likewise are ready to extend this proposition further, and to suppose that the nations of the old world, with their present habits of thought and life, need only to assume our forms of society and government in order to enlarge and secure their welfare; we are reasoning without sufficient data, and it needs only a few years or even months of personal observation to dissipate the illusion. So too when some of us look forward to the speedy downfall of thrones and principalities in Europe, and the formation of a great family of republics, this view seems to arise from an imperfect acquaintance with
the state of society there. Tempests of popular fury, and storms of revolutions, may indeed, as they have done, burst forth and sweep over the face of the nations and lay waste many a realm; and republics may arise from anarchy and for a time be nursed in blood; but there are causes, I apprehend, deeply seated in the very life of man in the old world, which for a long time to come will work out the overthrow of all such self-formed States. England and France have already gone through the like process of revolution, with results almost entirely parallel; and although in both these kingdoms the elements of strife and downfall seem now again at work, yet the same deep causes are also operating in both to turn aside the catastrophe, and to maintain still the supremacy and stability of ancient forms and institutions. Let me here pause for a moment, and direct attention to a few of these obvious conservatory causes.

I have already remarked, that we are to look for the permanency of our own institutions, to nothing more, perhaps, than to the habitual feeling of equality and independence, which has for more than two centuries been nursed in our bosoms. The same principle of habitual feeling flows out in the old world in the opposite direction; it is there the feeling of loyalty. The earliest accents to which there the infant listens, while it still lies upon its mother's breast, are those of respect and veneration for the sovereign. As the child increases in years, the voice of religion mingles with that of parental and public instruction, to enstamp upon his heart the precept: "Fear God and honour the king." The one is to him as binding as the other; and thus it comes to pass, that in riper years, even in the battle-cry of the patriotic warrior, "For King and Father-land," his sovereign stands before his country. Here now, right or wrong, is an idea deeply seated in the earliest and best feelings and principles of the human heart; a loyalty cherished from the first dawn of intelligence, which has "grown with the growth and strengthened with the strength," of each individual; and which therefore is so far just as potent and active for the maintenance of the institutions of the old world, as is the opposite habit in our case for the upholding of those of the new.

Besides all this, around the monarch cluster all the loved and venerated institutions of antiquity, all the cherished associations of patriotism and history. This veneration for antiquity we have not; for we have no antiquity; and we can therefore hardly estimate the powerful influence of the feeling in many parts of the
old world. There the history of each country is often but the bi-
ography of its line of monarchs; its institutions but the record of
their acts and grants; its poetry and romance, often the rehearsal
of their exploits; and thus the personal character and influence
and deeds of its sovereigns, are interwoven with the whole tex-
ture of history and literature and national feeling. So too the in-
titutions and forms under which each individual grows up, and
by which his character is moulded,—the institutions perhaps of
ages,—cannot lightly be thrown away. They may indeed have
become in part obsolete, or even have in time degenerated into
abuses; yet still they are from habit cherished even because
they are thus old. And yet more are they preserved, because,
intertwined as they are in the texture of all other social institu-
tions, they cannot be torn away without causing a wider rupture
and perhaps danger to the whole fabric. This too is a considera-
tion, which in this country we can hardly appreciate. The frame-
work of our society is so simple, that it is easy to adjust a beam
here, or to supply a brace there, and thus add strength to the edif-
ces without maruing its symmetry; while in the constitutions of the
old world, it might be difficult to cure a slight evil without induc-
ing a greater, to remove an excrescence without destroying a limb
or even endangering life itself.

Powerful as these causes are for the prevention of revolution or
even great change in the kingdoms of the old world, another still
stronger lies in the personal interest and influence of the higher
and more intelligent classes against all such change. I have al-
ready alluded to the fact, that among these classes exists the only
public sentiment which finds its way to the ears of princes; and
that to these alone the governments of the old world look for
their moral support. As a necessary consequence, it is the policy
of all those governments to bind these classes to them by all
possible ties; and not only to secure their influence, but to culti-
vate and enlarge it as far as possible. Hence, as the throne is
the source of all honour and power, it has come to pass that not
only in military and naval life, but also from the minister of State,
down to the petty schoolmaster of the village, every occupant of
a place of trust or profit is an immediate dependent of the govern-
ment; holding his post either by its direct gift, or else by virtue
of qualifications of which the government has constituted itself
the judge. Thus, on the continent at least, all educated men who
are in any measure dependent for support on the exercise of a
profession, ministers of the gospel, priests, physicians and sur-
geons, and teachers of every name and degree—all are compelled to look for that support to the favour of the government; to say nothing of those other honours so liberally bestowed in the form of titles and ribbons. If in Great Britain this is not so much the case in form, still the same effect is brought about as really in a less direct way. And when to all this, we add the influence of standing armies with their thousands of officers eager for promotion, and the still more numerous thousands of those interested in providing for the maintenance of these hosts; we find thrown around the existing forms of European society and government a wall of self-interest, which under ordinary circumstances the chaings and struggles of popular discontent will hardly suffice to overthrow.

In looking back to the circumstances of our own revolution, and thence arguing to the introduction of similar results in Europe, we are apt to overlook the fact, that with us, not one of all these counteracting causes was at work. We had no king; or at least he was so far removed as to be no object of veneration, and was known to us only through what we called oppression. We had no ancient institutions to be overturned. We had no like motive of self-interest to operate against the change; for with us all the wisdom and talent and learning of the land were already on the popular side. Our sole object was to secure that which we already possessed. How different the case in Europe! Let revolution once stalk forth upon her soil, and the monarch falls on the block or is driven into exile; the venerated institutions of ages are overthrown, the strongest ties severed, and the very foundations of social life and civil law are broken up; life, liberty, and property become the sport of popular frenzy; and yet from these elements and this chaos of horrid anarchy are to be drawn out the pure and simple principles and forms of liberty and peace! Our own high privileges were not achieved in this manner.

To return from this digression,—which however has a bearing upon the topic more immediately before us, as tending to bring out with greater distinctness the difference between the constitution of society in the new and old world. It follows from the survey we have thus taken, that, so far as the governments of the two hemispheres can be expected to promote the claims of education, literature, and science, the attention of government among us would naturally be directed to the diffusion of education and learning among the mass of the community to the full extent to
which the popular intelligence could appreciate these blessings; while the equally natural tendency among the governments of Europe would be to neglect the masses of the people, and concentrate learning and intelligence among the few. We see all this more or less exemplified in the actual state of things. It is one of our noblest themes of boasting, that the spirit of popular education is abroad and active among us; and that this spirit has operated and still operates upon our legislative assemblies to provide means and carry out plans for bringing the privilege of common schools home to every man's door. And what, though some of these among our mountains and our forests, are not at this moment all that we could wish, yet on the other hand I know not where to look for better or more efficient models than in the public schools of our large cities. Every native citizen among us, therefore, can read and write; and what is more, he does read; and, as a people, we are a reading and a thinking community. In Europe there exists a great diversity in different countries. While England, proud and wealthy England, does comparatively very little for the education of her lower classes; while France until recently, has done nothing for her peasantry, and Russia still does nothing for her serfs; the German States, and especially Prussia and Austria, have bestowed great care on the common education of the people, and their systems of schools in this behalf, exhibit models from which we and other nations ought to be eager to copy. They have even ventured to make laws on the subject, such as the independent spirit of our own country,—independent for evil as well as for good,—would not brook; and they can, and do compel every parent under a penalty, to cause his children to attend school for a term of years. Yet with all these advantages, the lower classes of those States are not a reading people; they have neither a supply of books nor newspapers adapted to the popular taste and wants; nor is there among them that activity of mind and general intelligence so prominent among ourselves. In Austria, where the system of public schools is supposed to be the best and most fully carried out, this deadness of the intellect, this stagnation of the popular mind, is more especially to be remarked.

When on the other hand, we regard the protection and aid furnished by governments to the higher interests of education and to literature and science in general; it is obvious, as already suggested, that we can look to our own government, founded on popular sentiment, for no such aid, beyond the extent which the popular intelligence and will point out; while on the contrary,
the monarchies of Europe have a direct interest in the more extensive cultivation of science and literature, and the protection of those devoted to such pursuits. In other words, the higher branches of literature and science, and also of the fine arts, so far as they have not a direct bearing on the practical interests of the community, with us are left to the operation of the voluntary principle; while in the old world they are protected by the interests of the State and sustained by its power and resources.

In this last remark, I apprehend, lies, after all, the gist of the whole question between us and the old world; and I proceed to review some of the greater facilities and means which are actually developed in the old world, by such a state of things, in behalf of the higher branches of intellectual culture, and the formation of larger classes devoted to literature and science.

One obvious and prominent remark is, that the monarchical governments of Europe are in a situation to produce a far greater demand for high intellectual culture in the various walks of literature and science, than is possible among ourselves. On this side of the ocean we cannot hope that the public demand will ever be in advance of, or even be equal to, the great public wants. We have a navy, and every American is proud of its character and deeds; but where is the naval school, in which its future heroes are acquiring that science which shall enable them to sustain and augment its renown? We have but the shadow of an army; and how much more do we therefore need the skill and science of officers trained in the noble seminary at West Point, and scattered throughout the land, ready to answer in a moment, to their country's call? Yet year after year, that seminary,—our only national institution of science,—is scarcely able to bear up against the cavils and efforts of many in our public councils, who are bent on its destruction. When too a stranger bequeaths to the nation a magnificent legacy for the establishment of an institution for general science, so little is the public demand and so slight the pressure of public sentiment, that after years of delay, the question is even yet not decided, what that institution shall be; and the whole matter is apparently laid aside to sleep forgotten, until some new excitement shall again call it into notice. The true source of this delay, and especially of the lethargy of public sentiment in this particular case, is probably the conviction wrought by experience upon the public mind, that legislative bodies, representing such a diversity of interests and subject to perpetual change, are not the proper organ to have the direct
control of literary and scientific institutions, nor for imparting to them vigour or permanency.

How is it in Europe? There every nation has its naval, and its military schools, in which the appropriate sciences are carried to their utmost extent, by professors and teachers of the highest name. And not merely these, but often likewise all those studies which go to qualify and adorn man in civil life are superadded and taught with great fidelity and effect. In the great military academy of Berlin, for instance, many of its regular instructors are also among the noblest ornaments of the university; and read before the youthful officers their courses of ethics, philology, geography, and all the physical sciences. The military surveys of the Austrian service, and the works published from them, are distinguished by the utmost degree of accuracy and elegance. Nor in this respect is Russia far behind, though she has published less. The naval science of England is created and called into exercise in her public ships, in the surveys of her own and foreign coasts. In the Levant, in the Red Sea, in every part of the globe, how much does the world, how much do our own navigators, owe to her perseverance, her science, and her skill? Expedition after expedition has been sent forth to seek after the northwest passage; and now, when the voice of science, coming from other lands, proposes to pry into the secrets of the magnetic influence, by long continued simultaneous observations in various and opposite parts of the globe, her ships go forth at the call, bearing scientific men furnished with the most delicate instruments; and observatories arise in every region to which her influence extends. True, all these outreachings of science stand in close connexion with her vast practical interests as a mighty maritime and commercial nation; yet the great mass of her population do not perceive this intimate relation; and she thus acts only through the medium of a permanent and enlightened government, possessing in itself both the power and the resources to form and carry out its plans. Are not these same great interests also our interests? Do not these inquiries and experiments stand in the same intimate relation to our own advancement? Yet in these recent movements of science, what have we done? And what could we as a nation do?

In like manner, the influence of the governments of Europe in creating a demand for science and literature in the walks of civil life, is not less manifest. We have seen that a wise policy constrains them to draw around and make dependent on themselves, all the elements of moral strength,—the nerves and the sinews,—
of the body politic. Thus from the monarch as the head, there reaches down a train of dependency through all the members of this body, to the base on which it stands. As in the army, so in the State; from the highest minister down to the lowest police-officer; from the chief dignitary of the church down to the very sexton; from the professor whose fame extends through the world, to the petty schoolmaster of a village, the government controls directly or indirectly every post of honour and profit, and fixes the qualifications which are to be the condition of office. These qualifications too, are no empty name; on the continent, at least, wherever there is any hope of eminence, they embrace a university-education; and this is essential to entering upon either of the learned professions. Whoever will become a divine, a medical man, a jurist, or a statesman, must have gone through this long course of mental and moral training; and his acquisitions must be put to the proof in protracted examinations before tribunals composed of high names in literature and science. As too, in the army, so in the State; the youthful aspirant must ordinarily begin his career at the lowest step of the ascent, and work his way upward under the eyes of watchful superiors and jealous rivals, where negligence or a false step might blast his hopes forever. Such, with some exceptions, is the ordinary state of things; and hence it has come to pass, that at the present day, the leading politicians of Europe are trained statesmen; and all her men of eminence in station and in fame, are such as have drunk deeply at the fountains of learning before entering upon their career, and have since been sustained and encouraged and led on by the favour of the State, and by the sympathy and aid of a learned and educated class around them. Indeed, the efficiency of this whole system to raise up and foster such a class, is too obvious to need comment. Nor does it require to be pointed out, how all these feelings clustering around a throne contribute in a high degree to its moral strength and permanency; though too often, unquestionably, at the expense of the nobler feelings of personal independence and dignity.

Besides the general patronage of a literary and scientific class in society, the same encouragement and aid is held out by the governments of the old world, in very many cases, to individuals of the same class. I need not here dwell upon the posts of honour and profit, or the titles, or the pensions, conferred upon scholars of high renown; these are rather the rewards for victories already won, than aids for the achievement of further conquests.
But I refer more particularly to the encouragement afforded beforehand for the accomplishment of individual plans and personal objects; such as the higher improvement of a public teacher by travel and study abroad; the examination of libraries and archives, and public collections, and the gathering of literary materials in other lands; in short the ready promotion even of private literary or scientific enterprises. There the individual need not go forth unaided and alone; he finds it easy to obtain the sanction and aid of his government or of public bodies acting under its authority. Thus Niebuhr was sent as ambassador to Rome, to study and write out upon the spot his history of the ancient mistress of the world. Thus Ranke, when in the prime of his youth he set out on his voyage of discovery, to gather up documents from beneath the dust of centuries, which now in the vigour of manhood he is working up to give new aspects to history,—went forth in the name and at the charge of the Prussian government. So too Russia has her literary, like her political agents, surveying almost every land. Even now her professors are travelling at the public charge throughout Germany, and the southern Slavic nations, Bohemia, Hungary, Servia, and the rest, studying, comparing, and making collections in the Slavic languages and literature as developed in those countries. So likewise in the case of oriental travellers. The elder Niebuhr and his companions were sent out at the public charge of Denmark; Seetzen drew his support partly from Russia and partly from the duke of Saxe-Gotha; Burckhardt was in the employ of a public society, patronized by the English crown and sustained chiefly from the wealth of the English aristocracy; and even very recently Olshausen of Kiel set forth on a journey to the Holy Land, under the sanction of the Danish monarch and aided by a specific grant from the public coffers.

How is it in this respect among ourselves? When the historians of our own country desire to consult the archives of England or of France, or collect materials in other lands, they may do it and have done it at their own risk and expense. Or when the legislature of a single State is perhaps roused so far as to make an appropriation, barely sufficient to cover the transcription of foreign records relating to her own history, than it becomes a matter of petty intrigue and political charlatanry, who shall be sent out as agent. Or if, again, one of our number desires to visit any land of oriental renown, to search out its aspect and relations, in their bearing upon the history and geography of former times, he may
do it at his own responsibility and cost, at the sacrifice of his salary and perhaps of his post,—unaided and uncheered except by the sympathy and counsel of a select few; and he may return home again with the consciousness that the results of his labours are understood and appreciated by the learned and the wise in foreign lands, far better than in his own.—How much more would not our own scholars be able to effect, could they be cheered by the same encouragement and aid, so readily proffered to those of Europe?

Another prominent general remark, which indeed includes all I shall have to say further upon this part of the subject, is, that it obviously lies in the interest and the power of the governments of Europe to supply and cherish to a far greater extent public institutions and means, both for the formation of the learned classes, and for the general and higher cultivation of literature and science in their various branches. I refer here more particularly to institutions for the liberal arts and sciences,—to universities, public libraries, and public scientific collections. All these indeed are sometimes comprehended under one general name and form, the university; but more frequently each is of such magnitude as to require its own separate establishment and supervision. Thus while the universities of Oxford, Cambridge, and Göttingen embrace all these departments within themselves, that of Berlin has only its scientific collections. The British museum indeed unites a library with its collections; but the noble libraries of Paris, Rome, Vienna, Berlin, and Copenhagen are independent foundations; as are also the magnificent scientific museums of the Jardin des Plantes, of Vienna, of St. Petersburg, and of various other capitals.

The influence of universities for the cultivation and extension of literature and science,—for awakening and stimulating the dormant energies of national mind and intelligence;—for furnishing the opportunities and means of climbing the heights of mental culture and surveying the boundless regions which at every step open upon the view,—this general influence requires not here to be dwelt upon; for it is everywhere spread out upon the pages of modern history, and may now be regarded as an axiom in the science of social and political economy. With the exception of Oxford, which delights to trace its slight and doubtful beginnings to the magnanimous Alfred, all the oldest universities of the old world sprung up during or soon after the period of the crusades, when the mass of mind in Europe was in the process of fermenta-
tion and transition, from the darkness of its former state to the
dawn of the revival of letters. In those ages all learning was in
the hands of the clergy; and it was the influence of the clergy
over the governments in behalf of learning, that led to the founda-
tion of the universities. And however widely at the present day
theology may often be separated from the other sciences, by rea-
son of the immense extent to which these are cultivated and the
division of labour which has been introduced, yet such was for-
terly their intimate connection, that the introduction of light and
truth into theology became the occasion and the source of the
highest improvement and progress in general science. The dawn
of light and spiritual emancipation arose with Wicliff at Oxford in
the fourteenth century; it gleamed and brightened in the begin-
ing of the fifteenth, in the teachings of Huss and Jerome among
the twenty thousand pupils of the university of Prague; and al-
though for a time its brightness was there quenched in blood;
yet the colony which went off to Leipsic scattered the seeds of
inquiry in northern Germany, where they fell into good ground
and were ever ready to spring up. In A. D. 1502 the university
of Wittenberg was established; and before the lapse of twenty
years there went forth from it the glorious Reformation,—that
moral revolution, the influence of which has been felt, not only in
religion, but with an equal power in literature, and science, and
all the great social and intellectual interests of man.

Nor is the influence of foreign Universities at the present day
less powerful or less extensive on the general interests of learn-
ing and of society; although this influence is altogether less promi-
ciently theological. Look at the venerated sites of Oxford and
Cambridge, ancient but by no means antiquated, and observe the
mighty influence which they wield, by their treasures as well as
by their teaching, over the learning and the science,—yes, over
the mind of Great Britain, and also of the world. Look at Göttingen,
dating back but a few years beyond a single century; ob-
serve her Mosheim, her Haller, her Michaelis, her Heyne, her
Blumenbach, and their compeers; what a power has gone forth
from her halls for good, not only to the thousands of pupils who
have gathered there, but even to the most distant regions! In
Prussia, within the present century, in the days of her deepest
national depression, her sovereign founded the university of
Berlin. He gave it a palace as its seat; threw open for its use
the royal library; called to its chairs men the most distinguished
for learning and ability; and endowed it with the necessary means.
Five and thirty years have not yet elapsed; and now what a power and an influence is spread abroad from that university, with its corps of one hundred and fifty professors and teachers, and its two thousand pupils! And although all this is sustained by an appropriation from the government, amounting to sixty thousand Spanish dollars per annum; yet there is now no jewel of the Prussian crown, of which it would not sooner prefer to be deprived. In the same interval, the universities of Breslau and Halle have been resuscitated, and that of Bonn founded, under the auspices of the same monarch, on a less extensive scale indeed, but with a like noble munificence.

The system which runs through all the universities of the continent is, in reality, one and the same. Throughout France and Germany and northern Europe they are directly dependent on the governments; which appoint all the professors and teachers, and for the most part make direct annual appropriations for the support of the various departments. The case of Oxford and Cambridge is different; they being nominally independent corporations, maintained by their own endowments which have come down through centuries. It results from these different systems, that in the universities of the continent their funds can be appropriated in the manner best adapted to promote the general interests at the moment; while in the schools of England, where their revenues were originally tied up to specific objects, and these in the progress of time have undergone strange changes in their relative importance, we now sometimes find masters and canons and fellows receiving a princely income, while not seldom a professor of distinguished name, so far as the emoluments of his office are concerned, may regard himself "as passing rich with forty pounds a year." Yet neither in England nor on the continent are the universities always limited to their regular revenues. On every occasion where larger sums are requisite in order to secure an important object, the governments, and also in England patrons and alumni of enormous wealth, are ever ready to yield a helping hand.

We have heard much in this country of the entire freedom which prevails in the universities of the old continent; where every student, it is said, may pursue what studies he pleases, without responsibility to any one; and where, too, the result is supposed to be a far greater diligence and activity in study than is found in our own country. It has been argued, too, that were the same freedom of choice and manner permitted here, the result
would naturally be the same, and would be manifested in a greater devotedness and higher cultivation. It would seem, however, that this reasoning, if good in itself, is nevertheless founded on false premises. For, in the first place, the continental universities are all of them clusters of professional schools; and it is obvious that the students of theology and of medicine and of law must naturally pay their chief attention to the studies connected with these professions. Now among all these, there are certain classes of subjects and courses of lectures (Brod collegia) which are made by the governments absolutely essential; to which every one who will enter upon either profession must have attended. Thus far, therefore, the case is not very different from what it is with us; and the only option which the student has, is as to the order and time in which he will take up those prescribed studies. Nor, further, will a merely partial or superficial attention to these prescribed branches suffice for his purpose. We have already seen that government controls every avenue to public and professional life, and that the only passport to eminence in any profession, or even to an entrance upon it, is a university-education. The extent and sufficiency of this education is ascertained by rigorous examinations, under the authority of government; which has here, the two-fold interest of obtaining able and well qualified servants for itself, and of excluding the pressure of importunate applications. If the student be able to sustain these examinations with credit, he may look forward to a course of honour and usefulness; if he fail at last, his hopes and fortunes are blighted forever. His toil and his years of study are lost; and nowhere, in his own country, can he turn them to account. In this way the governments of the continent, and indirectly also that of Great Britain, press with their whole weight upon the students of the universities; and compel a diligence which can know neither remission nor rest, until its great object be accomplished. In these circumstances, too, there lies not only a powerful check upon that entire liberty which has been represented as the characteristic of foreign universities; but also a mighty stimulus for acquiring early habits of extensive, profound, and accurate investigation.

Just here, perhaps, is one of the weakest points in all our own systems of education and professional life; since a popular government can naturally be induced to exert its authority in respect to personal scientific qualifications only in a slight degree. In the old world the student of theology who fails in his examination before one tribunal, can never be admitted before another; while
with us, he may first choose his judicatory, and then, if he fails, he has only to choose another, and repeat the process until he gains his end. The only approach, among us, to any like exercise of authority by government, is in respect to the professions of law and medicine; in which, in some of the States, a certain amount of preparation is required by the legislature or the courts. This is well, so far as it goes; but the requisitions are adapted and intended rather to exclude interlopers and quacks, than to draw forth talents and encourage learning.

Not directly connected with the universities, but still of a similar character and influence for the building up of learning, are the literary and scientific academies of the old world. True, they sometimes owe their origin to the voluntary combination of individuals; yet they nevertheless, in almost every case, look to the patronage and aid of the State for their chief means of activity and influence. With ample endowments to hold forth encouragement for the successful prosecution of laborious investigations, and to bestow rewards for brilliant discoveries, they have come to form, as it were, an aristocracy of literary and scientific merit, and thus act also as a powerful stimulus to persevering exertions. How different the lot of such institutions among ourselves; and how comparatively feeble in vitality and power! Here of course they can be nothing more than voluntary associations, without endowment and without the bond of public responsibility, with no external stimulus or aid to active effort, and no reward but the consciousness of well-meant intention. Who can wonder that, under such circumstances, our literary academies should only drag out a lingering existence; while, too, their members are necessarily compelled to spend their time and seek subsistence in the busy walks of practical and professional life.

I have adverted to the public libraries of Europe; and here it is perhaps most of all, that the eye of the American scholar pines away with longing, when he regards the infinite distance in which circumstances have placed us, in this respect, behind the old world. Some of these libraries are indeed the growth of centuries; yet all of them are younger than the universities, and appear to have sprung up out of the stronger thirst for knowledge awakened by the latter. The Vatican library, one of the oldest of modern times, dates back only to the middle of the fifteenth century; and was followed in the sixteenth by those of Vienna, Paris, the Escorial, and the Bodleian at Oxford. Yet others, again, are of far later date; and those at least of Berlin, of the British Museum,
and of Göttingen, are the offspring of only the last century. The library of Göttingen, for example, with its more than three hundred thousand volumes, like the university, has grown up in little more than one hundred years, and under the long administrations of Heyne and Reuss has been augmented, and extended, and filled out, with a wisdom and judgment which have rendered it the most select, as well as the most useful public library existing at the present day. And all, too, has been done by one small European State, numbering less than a million and a half of inhabitants; a country inferior in territory, in resources, in population, and in general intelligence, to several of the single States of our own union. Yet by means of its university, and especially of its library, Hanover has exerted a strong influence on the literature and science of Europe; and although at this moment under the reign of a madman, these institutions are shorn of their brightest beams, and languishing in temporary decay, yet prosperity will again return and their splendour be revived.

Would that we could go and do likewise! We could do so, if as a people we had the will; for the will would speedily provide the means. We must indeed send forth our agents to seek out and purchase books and private libraries beyond the sea; and we might also well have permanent agents abroad to improve every opportunity which might there occur. Our libraries even now, should they have so much as a few thousand dollars to lay out at once, might do well to despatch a skilful agent to select and make the purchases, rather than order books through the usual channels. The opportunity of selection and the saving in the cost, would ordinarily more than counterbalance the expenses of the agent. There is no reason, in itself considered, why we may not purchase books as advantageously and to as great an amount in the markets of Europe, as the Europeans themselves. Their vast libraries have indeed been collected when the cost of books was, in general, much less than at the present time; but we cannot hope, by waiting, to see a more favourable day. Indeed, the general extension of literature and science during the long peace in Europe, the corresponding demand for books, and even the increasing demand from the United States, has had the effect, within the last twenty years, very greatly to enhance the price of rare and valuable works.

In one species of literary treasures we can never hope to be rich; for they are limited in their extent, and are already gathered up and deposited in the older libraries of Europe. I mean ancient manuscripts, in which have been transmitted to us the literature
of Greece and Rome, and the code of our own religion as revealed to the Hebrews. Even the younger libraries of the old world, for example Göttingen and Berlin, have no such manuscripts of any value. Nor would it seem important for us to aspire after them, even were it in our power. Yet some of the brightest literary discoveries of modern times have had reference to these manuscript treasures; and none are now guarded with a more exact and ceaseless vigilance. Nor can we well or wisely acquire possession of the manuscript records of the middle ages, which in like manner lie treasured up or neglected, as the case may be, in the libraries and archives of Europe. In order to consult all these treasures of manuscripts, our scholars must be content to follow the example of the European scholar, and travel in person to inspect them in their various hiding-places. Would that we could do it under like sanctions and aids!

A question might arise in respect to public libraries,—a question, however, which we are not likely, in this country, soon to be called upon to decide,—whether, after all, such vast accumulations of books are of any importance, or are even, in themselves, desirable? The proper answer to this question would depend upon the proposed character of the library; whether it were to be professional and partial, or universal; whether intended to include only the essential books in any department, or all such as are important to it in all its bearings. Libraries of the former or partial class may indeed suffice for a practical acquaintance with, and the practice of, any profession; but if we wish to trace a science or a profession in all its bearings,—its theory and principles, its development and history,—we must be able to appeal to a wider range of books collected from every age and every land. Take, for example, the profession of Theology, and enumerate the volumes which properly belong to the elucidation of its great branches, Biblical Literature, Doctrinal and Pastoral Theology, Pulpit Eloquence, and Biblical and Ecclesiastical History; and those required for its illustration from the classics and classical antiquities; from philosophy and philology in general; from the history of the world, from geography and travels, and from the natural sciences. When we shall have gathered together all these,—and that too out of every nation where theology has been studied,—could the volumes be set up and arranged within the public halls of Harvard or Andover or Yale? Assuredly not; for the amount would swell far beyond the sum of all these libraries taken together.

So too in the departments of jurisprudence, of medicine, of his-
tory, of belles-lettres, of natural and moral science;—if a library is to be universal in its character, it ought to be made the repository of the mental products of every country in all the stages of moral, literary, and scientific development. The scholar who would follow out a subject or a science in all its bearings, and extend its limits, must be able to take a survey of the whole field heretofore explored; he must have access to all the results and hints which the efforts of preceding minds have been able to bring out; for it is not until he is master of all these, that he has in truth prepared himself to judge of what is still wanting, and so to make further advances. He must first be able to climb up and place himself fully on the shoulders of his predecessors, before he can see clearly, either what they saw, or what lay beyond their ken.—And further, a great portion of the labour of him who toils for the advancement of learning, consists in clearing away the excrescences and the rubbish, which have accumulated in his path, from the ill-directed efforts of those who have been deficient in this very preparation. Yet all this rubbish must be searched through and sifted, in order to determine that it is mere rubbish; and hence it is often as important for the scholar to wade through many volumes merely in order to ascertain and show that they are worthless, as it is to receive with delight the highest productions of the human mind.

Similar in their character, their objects, and their influence, are the immense collections in natural science, in antiquities, and various other branches, which now distinguish almost every capital of Europe. They are indeed leaves from the great book of nature, gathered from every quarter and brought together into a single volume, for the more convenient perusal of the observer of nature. The origin of such collections hardly dates back further than the last century; and much of that, which in former times men have wandered over the world to find, the observer of the present day may study almost in his own closet. True, he might sometimes understand the specimens better, could he behold them in their original localities, surrounded by the concomitants which perhaps went to form or modify their character. But this to most is obviously impossible; and there can be no question, that this eagerness for collecting scientific materials has aided more than anything else the advancement of the natural sciences,—partly by the direct means of observation and research thus afforded, and partly by the scientific voyages and travels to which this spirit has given rise.
All these collections again are the work of the governments of the old world. Indeed, national resources are requisite in order to endow them on an appropriate scale; and a princely munificence, in order to create and carry on the endowment. Or if individuals or societies have commenced such collections, it is the government which has taken them up and augmented them to a degree of completeness. Even the private munificence of the wealthy aristocracy of Great Britain has not been equal to the effort necessary to build up and sustain the British Museum. What private resources would be able to accumulate treasures like those of Berlin and Vienna? and especially the magnificent and unrivalled collections of the Jardin des Plantes?—In all such enterprises, we alas! must stand far in the background; for such an application of our own public resources is practically incompatible with the genius of our constitution. In the expedition to the South Seas, indeed, which public sentiment called forth and justified, a good beginning was made; may the example be followed!

The preceding remarks may serve to illustrate and sustain the proposition which I laid down, viz. that in this country the higher branches of literature and science, so far as they have no direct bearing on the practical interests of the community, are left to the operation of the voluntary principle; while in the old world they are protected by the interests of the State and sustained by its power and resources. This results among us, as we have seen, from the very circumstances of our social and political constitution; which makes the government to be the mere expression of the popular will. But there is among us also an aspect of the voluntary principle, which, even if it were itself disposed to rival European governments in their patronage of literature and science, would still render it comparatively inadequate. I refer to the far more equal division of property among us, in consequence of our customs of inheritance, and the abandonment of the law of primogeniture. Our statesmen, our professional men, our class of educated citizens, possess in general nothing more than a mere competency; and all these classes could not, if they would, bring together an amount of resources sufficient to place us on a par with Europe. Even among our merchants, there are comparatively few men of extensive wealth; they might indeed doubtless do more, could they be united and inspired for the purpose; but who shall persuade them to the sacrifice? They are all practical men, and understand great practical objects; and to these many of them contribute habitually and nobly. But as a class they do not claim to be learned men;
they are not in general men of liberal education; and have therefore, as a class, no practical, or personal acquaintance with the interests of literature and science.

I have thus endeavoured to bring before the reader some of the main circumstances in our social and civil polity as a nation, which, as it seems to me, must operate to give to literature and science among us a standing entirely different from that which they hold under the monarchical governments of Europe. With us, where public sentiment is that of the people at large, the government is necessarily prevented from calling forth or patronizing a literary class, by the very nature of our institutions; which necessarily cause its efforts to be directed mainly to the diffusion of a mere practical education throughout the whole mass of the body politic; while we have had as yet neither the opportunity nor the means to call forth the voluntary principle into high and extensive action. In Europe, on the other hand, where public sentiment emanates solely from the educated portion of the community, and the will and the resources of a State are permanently in the hands of the few, it becomes the interest and of course the habit of the government to patronize and aid the higher cultivation and extension of science and literature, and of the class devoted to these pursuits. It seems to me, that to the operation of these main causes, we may trace all the different aspects of development in these departments, which are manifested here and abroad; and also that the same causes, wherever found, have operated and do still operate to produce the same effects. Their influence is seen in the history of the ancient republics of Greece and Rome, to which allusion has already been made; they may be seen still at work in the literary institutions and standing of modern Switzerland. The Swiss people of the more enlightened cantons, under popular forms of self-government, are acknowledged as outstripping in independence, in information, and in physical comfort, the peasantry of other European countries; yet their public provision for higher cultivation and for literature and science in general are far behind those of the neighbouring States, and even behind our own. In all the modern movements of science, Switzerland as a nation has done comparatively nothing; except as her distinguished sons have trained themselves amid the noble universities and collections of Germany and France.

If further we consider for a moment the different circumstances of the literary classes themselves, on the two continents, we shall perceive other sources of that inequality of effort and result which
belongs to our own character. One of these lies in the more systematic and complete training which the young scholars of Europe receive; partly in consequence of the greater opportunities and advantages afforded by their high schools and universities; and partly from the greater encouragement and stronger motives for unremitting diligence presented in their system of education. Education itself is there a science, carried out by men trained for this very purpose. The professors and teachers in all the various departments are men who have devoted themselves from the beginning of their course, to these very studies; and a part of whose own education it has been to learn how these branches may be best taught. The youthful mind, too, is there taken up in its best opening years, and is continually acquiring discipline and strength and the materials of learning; so that it has already amassed and arranged for future use large mental treasures, at an age when many of our volunteers in science are still earning their bread with the sweat of their brow. We alas! have no nurseries for raising up teachers for our higher schools of learning; and it is a frequent, if not a general fact, that a public teacher has first to qualify himself to instruct in his department, after he has entered upon the duties of his appointment. In all these respects, the literary classes of the old world are as the dense masses of a standing army, well-trained, well-armed, well-officered, and abundantly furnished with all the implements and munitions of war; while our own hosts are like straggling troops of undisciplined volunteers, supplying their own arms and their own rations, without orders and without control, fighting each for himself and in his own way, and banded together only by a general impulse, which leads them on to strive for victory in a noble cause.

Another cause which operates against us, is the want of that literary and scientific acquaintance and intercourse, that union, that esprit du corps, which prevails in foreign lands. Those individuals among ourselves, who have either vanquished all obstacles at home, or who have perhaps trained themselves in foreign lands to do honour to our own country, find themselves after all in comparative solitude, with few if any around them to appreciate their acquirements or to sympathize with their tastes. Or if their own pursuits need illustration from the arcana of other departments, how frequent is the case that they are unable to consult either the dead volume or the living teacher! But in the old world, the man of science and letters lives among his equals and his fellows; he enjoys and is inspired by their sympathy and
suggestions; he is encouraged and rewarded by their judgment and applause. In Berlin, for example, if the student have questions to propose in geography, he can go to Ritter; if in history, sacred or profane, he can apply to Neander or Ranke; if in Greek and Roman literature and antiquities, to Böckh and Zumpt; if in Sanscrit, to Bopp; if in the lore of the middle ages, to Jacob Grimm; if in natural history, to Ehrenberg; if in geology, to Humboldt and Von Buch; if in chemistry, to Mitscherlich and Rose; all of these names in the very forefront of science; and so throughout the rounds of all the sciences. The scholar feels that he is not alone, but in the midst of kindred spirits; and he can go on with energy and high resolve to make conquests in the realms of nature and of mind. Niebuhr struck out and first wrote his History of Rome in the Prussian capital, aided by the suggestions and cheered by the sympathies of Savigny, Spalding, Buttmann, and others; he was afterwards sent to Rome itself, thinking to carry on his undertaking under the best auspices; but there, away from his books and surrounded by men of other minds and other tastes, his spirit languished; and one of the most profound and remarkable works of modern times remains uncompleted.

If we turn now from the consideration of all these different circumstances in which literature and science and their followers in the old and new world are placed,—these different foundations on which they may be said to rest,—and fix our attention for a moment upon the actual aspect of letters and the sciences in the two hemispheres, we might naturally and a priori expect that in all those branches of learning in which success depends upon long training and access to extensive libraries and other collections, our own scholars must of course stand in the background; while in those other branches, which are connected with practical duties, or which depend more on personal training and observation, and in the general applications of science to the arts and to the uses of practical life, we might hope to appear on more equal terms with the nations of Europe. A very brief review must here suffice to show how far this anticipation is borne out in the reality.

In the allusions already made to the state of letters and the sciences in our own country, while attempting to elucidate the operation of the different social institutions of our own and foreign nations, I fear the tone has in general, perhaps, been too derogatory to ourselves. I have been led to speak of ourselves only with respect to the means and facilities of learning, and in con-
trust with Europe; and to look therefore only at the darker shades of the picture. If, however, we take a survey of actual results, the contrast, I apprehend, will not be found so marked. The volunteers of the new world; if neither so numerous nor so well-disciplined, as the marshalled forces of the old; are mostly self-made men; and their spirit of enterprise and perseverance has enabled them to vanquish difficulties, to improve to the utmost the advantages afforded them, and thus to place themselves in many respects upon a level with their European brethren. In elegant literature, at least, several of the names most widely known in the old world are native gems of our own soil; and the poetry of American bards kindles up the fire of the soul not only among the heather of Scotland, but likewise along the romantic borders of the Rhine.

Let us look for a moment at the state of the learned professions, as manifested at the present time here and in the old world. It is a natural and necessary consequence of the operation of the various causes which I have been endeavouring to unfold, that among ourselves the practical side of all these should be predominant; and such doubtless is actually the case. But have we any reason, on this account, to shrink from a comparison with European nations in respect to the whole range of professional life and professional learning? Look first at Theology; and I venture to say, after no limited opportunities of personal observation, that the clergy of the United States, as a body, hold a higher rank both in the science and in the practice of the profession as preachers, than do those of any country of the old world, with the single exception perhaps of Germany. In that country there certainly is more of learning; the different departments of theological science are followed out to their utmost limits by men who devote their lives to each, on the principle of the division of labour. Such men, however, are not always, nor usually preachers; and I hold that the power of American preachers over American mind, is greater and more effective than that of German preachers over German mind. In Great Britain, as is well known, both theological science and pulpit eloquence are comparatively in a low state of cultivation; and while the great body of her clergy, both in depth of thought and impressiveness of manner, must yield the palm to their brethren of the United States, it is no less true that several of their most current and scientific works for biblical and theological study, are also the productions of American scholars.

Look again at the profession of law, which among us neces-
sarily exhausts itself almost exclusively in legal practice; and against the scientific culture of which as a national study, a strong barrier exists in the different codes and practice of our six and twenty States. Yet even here, I have never heard it suggested, that our lawyers and judges, in all that regards legal acumen and skill, and in the requisite theoretical knowledge, do not stand at least upon a par with their brethren in England,—to say nothing of Scotland and Ireland. The body of English law itself is indeed but a single dialect in the great stock of historic national law, which prevails to a greater or less extent throughout the rest of the old world; and the jurists of the continent are wont to smile at English lawyers for confining their learning to the merely insular jurisprudence of their own nation. In this connection it has often struck me, that a wide field yet remains open for our own young and enterprising lawyers, in the study of the Roman law as still extant on the continent of Europe. If it was an honour to Mansfield to enlarge the limits of the English maritime law by principles borrowed from foreign jurisprudence, how much more might like principles which have thus borne the test of ages, be yet introduced to expand or to modify the codes of our own rising republics? It is just this field, that has been most of all neglected by our young scholars who visit foreign lands. While of course we can make no extensive claim to the historic and scientific law-learning of the continent, because, like the English, our attention has never been generally directed to it; yet in all that relates to the science of English law, the works of our writers, if not equal in number, may nevertheless well bear comparison in learning and authority with those of the mother country; and the decisions of Marshall and the volumes of Kent and Story, are perhaps as justly appreciated and as authoritative in the schools of London, as before the courts of our own States. In respect to the public law of nations, the current treatise of the present day on international law, which serves too as the manual of European diplomatists, is the work of an American, who still does honour to his country as her representative at the most learned court of Europe.

In the medical profession, a life of laborious practice is unfavourable to the production of books; and the physical well-being of our people, by removing the necessity of immense public hospitals, cuts off at the same time one great means of scientific education. Hence the number of our students in medicine, who resort to the crowded schools of Europe; where we find not less than sixty or seventy annually walking the vast round of the Pa-
Rusian hospitals, fewer in London and Edinburgh, and still fewer in Vienna and Berlin. Even the professors in our schools of medicine have in general little time to become authors; yet I have often been interested in looking over foreign catalogues to observe the titles of American medical works in several of the languages of Europe, from our most distinguished men.

So far then as it regards the actual state, both of the science and the practice of the great learned professions, I do not fear to express the decided conviction, that we as a people can be subject to no reproach as compared with England and France, the great leading nations of the old world; to no reproach at all, indeed, to which those nations are not also subject as compared with Germany; where again the national mind exhausts itself in the science, while the practice often remains a lifeless form.

But on the other hand, in regard to those branches of science less directly connected with the great practical wants of daily and public life, and which too for their adequate cultivation require long discipline or accumulated treasures, the case with us is far different. Thus in pure mathematics, while we have teachers of high reputation, yet they have rarely made themselves known as authors, beyond the circle of books required in our schools. As yet, only the name of Bowditch has obtained a European fame as the commentator and coequal of Laplace. The same remark and the same example hold good in scientific astronomy; while in practical astronomy our efforts have been comparatively few; and we have as yet neither a public observatory, nor adequate means for training up accomplished observers. The neglect of these branches of science is the more remarkable, because of their intimate relation to those pursuits of national enterprise, for which we are most distinguished,—navigation and internal improvements. Yet to this day our own wide territory remains without a scientific survey; and even our very coasts and harbours, up to this time, have not yet been scientifically explored. It is only within very recent years, that our most frequented harbour, that of New York, has been subjected to such an examination, and its deepest and safest channel thus discovered.

The great department of philology, whether ancient or modern, historical or comparative, has thus far been to us, in its higher walks, almost an untriedden field. Few are the individuals among us, who have been led to devote their lives to this branch of study; and still fewer those who have contributed to enlarge the means or boundaries of our knowledge. Yet even here some portions of
this wide field have not been left untilled. In all that regards the
philology of the Scriptures, we certainly stand at least on equal
ground with Great Britain; and in respect to the comparative phi-
ology of the American and Asiatic world, we find among our dis-
tinguished jurists able and well known coadjutors in the immense
labors of a William Humboldt.

In the branches of general history and geography the case is,
if possible, still worse; because the scholar is here met at every
step with the want of extensive public libraries. Only a single li-
brary of our land has as yet made provision for the materials of
the history of our own country, so far as printed books are con-
cerned; and all the countless unprinted documents and records of
the old world, relating to the same subject, lie yet uncopied and
unknown, except so far as they have been examined by individu-
al enterprise within the last few years. It is but yesterday that
the spirit of our own historians has been aroused; and well have
they begun their task. But a history of foreign lands,—who
among us could undertake to write it? Where could he find the
materials—where could he appeal to the sources of history, in re-
gard to a single foreign country? In the only attempts of the
kind yet made among us, those materials and sources were
sought at great expense in the foreign countries themselves; and
with such fruit, that the History of Ferdinand and Isabella has al-
ready found its way, as a standard work, into most of the languages
of modern Europe, and the same remark will soon be applicable
to the History of the Conquest of Mexico.—In the sister science
of geography, we have nothing of the kind to show; nothing to
compare with works like those of Rennell or Ritter, or scarcely
with those of Malte Brun and Murray. We have beautiful maps;
but, apart from some of those of our own continent, they are drawn
from no original sources. In short, notwithstanding all our wan-
derings by sea and land, we have done almost nothing for the
scientific progress of this most pleasing and popular of sciences.

On the other hand, if we contemplate for a moment those
branches of science which depend more upon personal observa-
tion and invention, we may hope to find our scholars holding a
more equal footing with those of Europe. Such are, in a great
degree the natural sciences, so called, whose present expansion
and cultivation reaches back hardly a hundred years. In all or
any of these, indeed, we cannot hope that there should arise
among us a Linnaeus or a Cuvier; unless indeed from individu-
als who shall have had an opportunity of training themselves
among the vast collections of the old world. Yet so far as the
power and the habit of observing nature are concerned, I am not
aware that our scholars would not and do not take a high rank in
Europe. The most magnificent and accurate work extant on or-
nithology, is that descriptive of American birds; and a similar one
upon our animals is announced from the same skilful hands. Our
geologists and our chemists are known and greatly respected
abroad. And if in the hands and with the powerful apparatus of
European analysts, the electric fluid was first employed to compel
nature to render up her secrets; yet our own Franklin, with beau-
tiful simplicity, had already detected its identity with the lightning
from heaven. In the present revival too and extension of the sci-
ence of meteorology, we find Americans holding a leading place
among these lords of the storm.

In like manner, in all the applications of science to the arts and
to the uses of life, American invention and skill certainly take rank
at least with those of Europe, and in many particulars outstrip
them. In all that relates to naval architecture and navigation, to
the models of our ships and to the skill, enterprise and discipline
of our seamen, the United States confessedly stand foremost
among nations. The grand invention of modern times, the source
of the present mighty revolution in navigation and naval warfare,
—which is converting seas into lakes, and contracting oceans to
the narrow limits of seas,—the successful application of steam to
ships, is due exclusively to American enterprise and perseverance;
and steam-vessels swarmed upon our waters for years before they
were slowly and cautiously introduced in the old world. The like
application of steam to locomotive carriages was indeed first made
in England; but these have been improved by American inge-
nuity; and locomotives from the new world now traverse the
vast plains of Germany and Russia, and are said to be supplant-
ing in England herself the best efforts of British skill. Foreigners
of science and practical training now visit our shores to study the
models of our ships and the construction of our rail-roads. And
even England herself, if she owes to the simple invention of her
Davy the safety with which her treasures of coal are mined in the
bowels of the earth, is not less indebted, in respect to the material
of her great staple manufacture, to the no less striking ingenuity
of our own Whitney.

I cannot pursue this topic further. My limits do not permit, nor
does my plan require it. But I may be allowed, in conclusion, to
suggest, very briefly, a few points in respect to our cultivation of
literature and science, on which, as a people, it concerns us in our peculiar circumstances, to lay particular stress.

To the young men of our country who are treasuring up the elements of liberal knowledge, and to those to whom is committed the training of the youthful intellect and enterprise, I would say, Lay deep and broad and firm the foundations; that the structure which you shall hereafter raise, may be solid, symmetrical, and enduring. Our national tendency is to haste,—to accomplish with the utmost speed that which we undertake; without always stopping to inquire, whether it is thus done in the best manner. Everything among us bears marks of haste; our public works, our private enterprises, all are begun with reference to immediate use and present profit; we undertake nothing which does not hold out the prospect of a quick return; we act not for posterity. We may see this spirit at work even in the crowds who throng our literary institutions. How many rush forward into professional life with no love to learning or regard to science; but merely as a more respectable handicraft, or a more promising ladder for their aspiring hopes? How many of these would not, if they could, cast wholly away these years of preparatory toil? and how many strive, as it is, to curtail the time and evade the studies marked out before them? On this rock our national reputation for literature and science may easily make shipwreck. Let me then urge upon all to improve these precious moments of youth, these golden opportunities of youthful leisure and youthful activity, which will never again return;—when labour exhausts not, and care leaves no furrows, and diligence in pursuit is rewarded by the delight of acquisition. Lay broad and deep the foundations; accumulate rich treasures from every quarter; discipline the mind and memory to systematic and continued exertion; cultivate habits of exact and patient investigation; do all this, and you will not fail to reap your reward. When you shall have gone forth as actors on the stage of life; when the brightness of youthful hope shall have become dim, and the cares and the struggles of every day exhaust the soul; then will you feast upon those treasures which you now gather; then will you look back upon these days as the blossom of your lives; and if you shall have neglected to improve them to the utmost, great, hopeless, and enduring, will be your regrets.

To the little band of volunteers in literature and science among us, I would say, "Be not discouraged; but let your gathering-cry be, 'Onward.'" If we cannot hope for honours and titles and high-places as the reward of our exertions, let us still cultivate
science for its own sake, and build up for our country an intellectual renown among the kingdoms of the world. Let us make good use of all our means, both public and private; yea gather up the fragments that nothing be lost. Let us cultivate an acquaintance with each other; and cherish a spirit of respect and courtesy and harmony among ourselves. In this way we may hope,—and we shall ultimately come—to exert as a body a more powerful influence upon public sentiment, and mould it more and more to a favourable regard for letters and learning. The germ is certainly within us as a people; it needs only a more perfect development. Our fathers sowed the good seed; all their earliest institutions looked to the culture of the arts and sciences; and this has never been forgotten, although the obvious circumstances of our social constitution have justly given a paramount claim to the diffusion of popular education. But we need not rest here. We have already many public institutions, chiefly the results of the voluntary principle, but recognized and fostered by legislative authority. Let us cherish these institutions, elevate their character, and carry out their usefulness to the utmost. Let us exert our influence,—an influence strengthened by our example and by the fruits we may gather from science—upon the wealthy of our land; that so they may still further endow our seminaries, and enlarge our libraries and our scientific lectures. By thus acting upon public sentiment, we act also directly upon our governments, and may hope the more confidently for their further aid. Let us strive by example and by precept, to impress upon all those who take part in our public councils, and also upon our whole body politic, the truth of the great axiom, that "knowledge is power;" knowledge not only as diffused through the mass, but also knowledge as pursued to its sublimest heights; and therefore, if we would acquire for our common country a supremacy of influence and power among the nations of the earth, let that power rest on knowledge.

But while we thus urge that knowledge is power, let us also remember that, in itself and by itself it is a power for evil as well as for good. Knowledge in itself has nothing moral; it is the mere material on which the intellect works; it has no character of its own; and it becomes alike the instrument of good or evil according to the promptings of the moral man. To him whose moral nature is debased and wicked, knowledge affords only the means for the more facile commission of crime, and leads to surer infamy and deeper perdition. Yet where the moral powers are cultivated, knowledge in all its branches becomes one of the noblest helps
for higher cultivation; and the philosopher who walks abroad and looks through all the forms of "nature up to nature's God," is capable of an enjoyment wider and more profound, than could otherwise have entered into his conceptions. I do not mean to say, that moral and religious sentiment in the heart of the unlearned man is not the same in nature and intensity as in the philosopher; the wine-glass and the pitcher may be equally full; but one holds many times more than the other. Let us then in all our efforts to increase knowledge, strive also to extend the influence of moral culture; to implant and cherish moral principle and religious feeling; so that while we incite others to observe and gather in treasures of knowledge from the natural and intellectual world, we may also lead them to regard these only as the means for higher moral trainings and enjoyment here, preparatory to the blessed rewards of an eternal hereafter.

Let us then go on our way rejoicing,—self-inspired and independent of all aid, but such as we can earn as a voluntary gift from enlightened public sentiment. We as a nation have been the first to cast off the union of Church and State; and, as we believe, with manifest advantage to the best interests of religion and the church; for where does religion, as controlled by the State, exert an equal influence in the hearts of the people? In like manner, let us prove to the world, that literature and science also can subsist and flourish, sustained by the public sentiment of an enlightened people,—without dependence on the State,—without wearing either the fetters of a slave, or the livery of kings!

ARTICLE II.

LIFE OF ARISTOTLE.

By Edwards A. Park, Bartlet Professor in Andover Theol. Seminary.

The following article has been compiled from several works and fragments of ancient and modern historians. The ancient biographies which have been employed are, first, that by Diogenes Laërtius; secondly, that by Ammonius, who for distinction's sake is denominated Pseudo-Ammonius; thirdly, that which is sometimes called the Latin Biography, and sometimes the Ancient Translation, the writer of which is unknown; fourthly, that which